

ABSTRACT

A linear brushless electric motor (10) including a magnet component (12), a conductor component (14) that interacts with the magnet component (12) and a control system (15) for directing current to the conductor component (14) is provided herein. Uniquely, the conductor component (14) includes an auxiliary conductor array (42) that reduces stray magnetic fields generated by the electric motor (10), without significantly influencing the dynamic performance of the motor (10) and without significantly increasing the size of the motor (10). Because of the conductor component (14) provided herein, the motor (10) is particularly useful in manufacturing, measurement and/or inspection processes that are sensitive and/or influenced by stray AC magnetic fields. More specifically, the present invention is particularly useful with an exposure apparatus (18) that utilizes an illumination system (24) that generates a charged particle beam, such as an electron beam.

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